

## ABSTRACT

The front end portion of a bending action member and manipulator is constituted of multi-slider linkage mechanism which starts the operation of a second articulation portion at its rear end side after the bending action of a first articulation portion on the front end side ends. A guide link portion 26 which covers a link member 23 to guide it through a sliding contact is sealed in a hollow portion to prevent leakage of air. In multi-slider linkage mechanism, two frames at a joint portion are formed in forward taper to set the magnitude of a moment required for starting the bending action of a second articulation portion larger than a moment required for the bending action of the first articulation portion. The manipulator is comprised of an actuator portion and a bending forceps portion and capable of engaging/disengaging each other. The actuator portion is provided with a joint arm 13 having a plate containing a fitting hole for connecting the motor with the link member 23. A connecting pin 21 is provided at an end on the engagement/disengagement side of the link member 23 inside the bending forceps portion and fitted to a fitting hole 13c in an elastic body 13a of the joint arm 13, so that the motor and the link member 23 are connectable/separable.